

Title (en)
Flow control valve

Title (de)
Durchflussteuerventil

Title (fr)
Vanne de commande de débit

Publication
EP 1167847 A2 20020102 (EN)

Application
EP 01115926 A 20010629

Priority
JP 2000198181 A 20000630

Abstract (en)
A flow control valve includes a valve body (1) having a substantially cylindrical bore, and a substantially cylindrical valve element (8) received within the cylindrical bore of the valve body to be reciprocable. The valve body and the valve element define first and second chambers separated by the valve element. The valve body has a circumferential groove (26) surrounding the valve element, and a plurality of radially-extending passage holes (27) communicating with the circumferential groove. The circumferential groove and the passage holes form portions of the second chamber. The valve element has a plurality of radially-extending throttle holes (25) for establishing communication between the circumferential groove and the first chamber. The flow rate of operation oil flowing between the first chamber and the second chamber via the throttle holes is changed through axial movement of the valve element. The passage holes and the throttle holes are circumferentially arranged in such a manner that even when one of the passage holes circumferentially overlaps one of the throttle holes, the remaining passage hole or holes do not circumferentially overlap the remaining throttle hole or holes. <IMAGE>

IPC 1-7
F16K 31/06

IPC 8 full level
B62D 5/07 (2006.01); **F16K 3/24** (2006.01); **F16K 3/26** (2006.01); **F16K 3/32** (2006.01); **F16K 3/34** (2006.01); **F16K 31/06** (2006.01)

CPC (source: EP US)
F16K 3/24 (2013.01 - EP US); **F16K 3/34** (2013.01 - EP US); **F16K 31/0693** (2013.01 - EP US); **Y10T 137/8671** (2015.04 - EP US)

Cited by
EP1645787A1; CN105840902A; CN102400970A; CN102428304A; CN114439801A; US8833729B2; WO2010124757A1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1167847 A2 20020102; **EP 1167847 A3 20021211**; **EP 1167847 B1 20061115**; **EP 1167847 B8 20070103**; DE 60124454 D1 20061228; DE 60124454 T2 20070906; JP 2002013650 A 20020118; JP 3687499 B2 20050824; US 2002029813 A1 20020314

DOCDB simple family (application)
EP 01115926 A 20010629; DE 60124454 T 20010629; JP 2000198181 A 20000630; US 89378201 A 20010629